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 LANGUAGE: English
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 CODEN: OGUPE7. ISSN: 0098-1133.
 L6 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1996:231992 CAPLUS
 DOCUMENT NUMBER: 124:252725
 ORIGINAL REFERENCE NO.: 124:46633a, 46636a
 TITLE: Amplification of multiple target nucleic acids in a sample using a volume exclusion agent to increase the efficiency of amplification
 INVENTOR(S): Backus, John Wesley
 PATENT ASSIGNEE(S): Johnson and Johnson Clinical Diagnostics, Inc., USA;
 Ortho-Clinical Diagnostics, Inc.
 SOURCE: Eur. Pat. Appl., 18 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 702090	A2	19960320	EP 1995-306480	19950914
EP 702090	A3	19980304		
EP 702090	B1	20040506		
R: AT, BE, CH, US 5705366, CA 2158486, CA 2158486, JP 08103300, JP 3802110, AT 266102, PT 702090, ES 2219655	DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE	19980106	US 1994-306792	19940915
	A	19960316	CA 1995-2158486	19950914
	A1	20071106		
	C			
	A	19960423	JP 1995-236899	19950914
	B2	20060726		
	T	20040515	AT 1995-306480	19950914
	E	20040930	PT 1995-306480	19950914
	T3	20041201	ES 1995-306480	19950914

PRIORITY APPLN. INFO.: US 1994-306792 A 19940915

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Multiple target nucleic acids in a single sample are amplified using polymerase chain reaction in the presence of a nonionic, polymeric volume exclusion agent. The amplification efficiency of low copy target nucleic acids is increased in the presence of the volume exclusion agent even though lower concns. of primers are used. In this manner, amplification efficiency of a given target nucleic acid can be more readily manipulated. The exclusion agents can be incorporated into kits. The use of PEG 8000 as a volume exclusion agent in PCR is demonstrated. The efficiency of the reaction was increased when the polymer was used, even at low DNA polymerase activities (8 units/200 μ L) and primer concns. of 0.1 μ M.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
 (4 CITINGS)

L6 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1987:103013 CAPLUS
 DOCUMENT NUMBER: 106:103013
 ORIGINAL REFERENCE NO.: 106:16891a, 16894a
 TITLE: Flexible polymers with excluded volume at a penetrable interacting surface
 AUTHOR(S): Douglas, Jack F.; Wang, Shi Qing; Freed, Karl F.
 CORPORATE SOURCE: James Franck Inst., Univ. Chicago, Chicago, IL, 60637,
 USA

SOURCE: Macromolecules (1987), 20(3), 543-51
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymers, terminally attached to a d dblvert.-dimension penetrable interacting hypersurface, are described by using the 2-parameter model of excluded volume, a pseudopotential polymer-surface interaction model, and the renormalization group method. The dimensionality of the hypersurface is fixed as d dblvert. = 2, so that the ϵ -expansion ($\epsilon = 4 - d$ with d the dimension of space) method can be applied to both the polymer-polymer and polymer-surface interactions. Then the mean-square end-to-end vector distance $\langle R^2 \rangle$ is calculated to first order in ϵ as a function of polymer-surface and polymer-polymer interactions. The result is compared to $\langle R^2 \rangle$ for a terminally attached polymer at an impenetrable interacting surface. An increase in the chain expansion due to repulsive excluded volume interactions leads to a decrease in the effects of repulsive polymer-surface interactions on the polymer dimensions. This phenomenon is an apparent consequence of the lower d. of the chain upon expansion and the resultant lower probability of the chain encountering the surface. Scaling arguments, on the other hand, indicate that attractive surface interactions amplify the effect of the excluded volume interaction.
OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD
(5 CITINGS)

L6 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2011 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 1978:542796 CAPLUS
DOCUMENT NUMBER: 89:142796
ORIGINAL REFERENCE NO.: 89:22089a,22092a
TITLE: Volume exclusion errors and the determination of serum zinc
AUTHOR(S): Boyde, T. R. C.; Wu, S. W. N.
CORPORATE SOURCE: Dep. Biochem., Univ. Hong Kong, Hong Kong
SOURCE: Clinica Chimica Acta (1978), 88(1), 49-56
CODEN: CCATAR; ISSN: 0009-8981
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Volume exclusion gives rise to pos. errors in the results of plasma or serum Zn detns. by methods in which protein is precipitated and the Zn extracted into solution prior to atomic absorption spectrometry. The error is amplified if 2 extraction steps are employed, and may be $\geq 20\%$. The same effects must be expected in any anal. involving comparable extraction procedures, whatever the substance being determined

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FILE 'CAPLUS, MEDLINE, BIOSIS' ENTERED AT 08:39:36 ON 05 JUL 2011
L1 2856 S (PCR) AND (DEXTRAN OR POLYETHYLENE OR COSOLVENT)
L2 642 S L1 AND PY<2002
L3 409 DUP REM L2 (233 DUPLICATES REMOVED)
L4 6 S L3 AND MULTIPLEX
L5 11 S (VOLUME(W)EXCLU?) AND (PCR OR AMPLIF?)
L6 9 DUP REM L5 (2 DUPLICATES REMOVED)

=> d hist full

(FILE 'HOME' ENTERED AT 08:39:17 ON 05 JUL 2011)